

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US96/17072

A. CLASSIFICATION OF SUBJECT MATTER IPC(6) :B01L 3/00; B01L 11/00 US CL :422/102 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 422/68, 99, 100, 101, 102 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched NONE Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) NONE		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ---- Y	US 4,111,754 (PARK) 05 September 1978, see entire document.	1,4 ----- 2-3,5
Y	US 5,395,594 (NOKIHARA et al) 07 March 1995, see entire document.	6-8
Y	US 4,787,988 (BERTONCINI et al) 29 November 1988, see entire document.	6-8
A	US 5,039,493 (OPRANDY) 13 August 1991, see entire document.	1-8
A	US 4,483,925 (NOACK) 20 November 1984, see entire document.	1-8
A	US 4,304,865 (O'BRIEN et al) 08 December 1981, see entire	1-8
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents:	*T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *A document defining the general state of the art which is not considered to be of particular relevance *E earlier document published on or after the international filing date *L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O document referring to an oral disclosure, use, exhibition or other means *P document published prior to the international filing date but later than the priority date claimed *X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art *Z document member of the same patent family	
Date of the actual completion of the international search 16 JANUARY 1997	Date of mailing of the international search report 12 FEB 1997	
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer HAROLD Y. PYON <i>Harold Y. Pyon</i> Telephone No. (703) 308-0651	

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PCT/US96/17072

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,493,815 (FERNWOOD et al) 15 January 1985, see entire document.	1-8

Form PCT/ISA/210 (continuation of second sheet)(July 1992)*

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US97/14730**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(6) :GOIN 33/53, 33/543, 33/544, 33/545, 33/546

US CL :436/518, 523, 524, 525, 526, 527, 528, 529, 530, 531; 435/4,7.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 436/518, 523, 524, 525, 526, 527, 528, 529, 530, 531; 435/4,7.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

None

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS, CASONLINE

search terms: beads, microbeads, array, combinatorial synthesis, adhesive

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,288,514 A (ELLMAN et al) 22 February 1994, entire document	1-13, and 15-22
Y	US 5,366,140 A (KOSKENMAKI et al) 22 November 1994, entire document	1-13, and 15-22
Y,P	US 5,591,646 A (HUDSON et al) 07 January 1997, column 4, line 45 to column 5, line 5,; column 5, lines 34-37; Figure 1.	1-13, and 15-22
A,P	US 5,624,711 A (SUNDBERG et al) 29 April 1997, entire document.	1-13, and 15-22
A	LAM et al. A new type of synthetic peptide library for identifying ligand-binding activity. Nature. 07 November 1991, Vol. 354, pages 82-84.	1-13, and 15-22

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*A* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 30 SEPTEMBER 1997	Date of mailing of the international search report 11 OCT 1997
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer P. ACHUTAMURTHY Telephone No. (703) 308-0196

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US97/14730

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	HOUGHTEN et al. Generation and use of synthetic peptide combinatorial libraries for basic research and drug discovery. Nature. 07 November 1991, Vol. 354, pages 84-86	1-13, and 15-22
Y	ZHAO et al. Two New Criteria for Choosing Sample Size in Combinatorial Chemistry. J. Med. Chem. 1996, Vol. 39, No. 2, pages 350-352, see entire document.	1-13, and 15-22

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 14
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

Please See Extra Sheet.

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

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BOX I. OBSERVATIONS WHERE CLAIMS WERE FOUND UNSEARCHABLE

2. Where no meaningful search could be carried out, specifically:

This claim recites a chemical compound without disclosing its chemical nature, type or formula. Neither claim 13 from which claim 14 depends, nor claim 1 from which claim 13 depends disclose any particular type of starting compounds or final products. It is impossible to search for claim 14 in the absence of any clue to its chemical nature.